

CLAIMS

1. One or more computer readable media having stored thereon a plurality of instructions that, when executed by one or more processors, causes the one or more processors to perform acts including:

selecting a portion of a digital good;

selecting another portion of the digital good, wherein the other portion is to be encrypted; and

using the portion as a substitution box (S-box) when encrypting the other portion.

2. One or more computer readable-media as recited in claim 1, wherein the entire digital good is to be encrypted.

3. One or more computer readable media as recited in claim 1, wherein the using comprises determining, for each group of bits of the other portion, a new group of bits based on the portion.

4. One or more computer readable media as recited in claim 1, wherein the using comprises using bits of the portion to determine a substitution sub-portion for each sub-portion in the other portion.

5. One or more computer readable media as recited in claim 4, wherein the sub-portion comprises a byte.

1 6. One or more computer readable media as recited in claim 1, wherein
2 the digital good comprises a software program.

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4 7. One or more computer readable media as recited in claim 1, wherein
5 the digital good includes video content.

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7 8. A method comprising:
8 selecting a segment of a digital good;
9 selecting another segment of the digital good, wherein the other segment is
10 to be encrypted using an encryption process; and
11 mapping, as at least part of the encryption process, values within the other
12 segment to new values based on the segment.

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14 9. A method as recited in claim 8, wherein the entire digital good is to
15 be encrypted by the encryption process.

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17 10. A method as recited in claim 8, wherein the mapping comprises
18 using the segment as a substitution box (S-box) during the encryption process.

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20 11. A method as recited in claim 8, wherein the mapping comprises
21 determining, for each group of bits of the other segment, a new group of bits based
22 on the segment.

19. A method as recited in claim 18, wherein the using comprises determining, for each group of bits of the other portion, a new group of bits based on the portion.

20. A method as recited in claim 18, wherein the using comprises using a bit pattern of the portion to determine a substitution value for each value in the other portion.

21. A method as recited in claim 17, wherein the digital good comprises a software program.

22. A method as recited in claim 17, wherein the digital good includes video content.

23. A method as recited in claim 17, wherein the using comprises using the substitution box as part of a Data Encryption Standard (DES) cipher.

24. One or more computer-readable memories comprising computer-readable instructions that, when executed by a processor, direct a computer system to perform the method as recited in claim 17.

25. A production system, comprising:

- a memory to store an original program; and
- a production server equipped with a substitution box (S-box) protection tool

that is used to augment the original program for protection purposes, the

1 production server being configured to identify a first segment in the original
2 program and use the first segment as an S-box when encrypting a second segment
3 of the original program.
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5 **26.** A production system as recited in claim 25, wherein the production
6 server is further configured to use the first segment as an S-box by determining,
7 for each group of bits of the second segment, a new group of bits based on the first
8 segment.
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10 **27.** A production system as recited in claim 25, wherein the production
11 server is further configured to use the first segment as an S-box by using bits of
12 the first segment to determine a substitution value for each value in the second
13 segment.
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15 **28.** A production system as recited in claim 25, wherein the production
16 server is to encrypt the entire digital good.
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18 **29.** A production system as recited in claim 25, wherein the digital good
19 includes one or more of: a software program, audio content, and video content.
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21 **30.** A production system as recited in claim 25, wherein the production
22 server uses a Data Encryption Standard (DES) cipher to encrypt the second
23 segment.
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